Tween Bridge Solar Farm

A Nationally Significant Infrastructure Project in the Energy Sector

Preliminary Environmental Information Report

Chapter 2 – Scheme Description

October 2023

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2. Scheme Description

2.1. Introduction

2.1.1. This chapter of the working draft Preliminary Environmental Information Report (PEIR) provides a description of the proposed scheme. At this point in the evolution of the scheme, the Applicant is not yet able to confirm the final description of the scheme and the Order Limit. Therefore, the physical characteristics of the scheme are described reflecting the development as currently understood and proposed by the Applicant. The scheme will be refined during the iterative design process, taking into account the environmental constraints and opportunities of the site, together with consultation with consultees and the community.

2.1.2. The key activities that would be undertaken during construction, operation (which includes maintenance), and decommissioning are included in this chapter; each of these phases inform the technical assessments included in this draft PEIR.

2.1.3. This chapter should be read alongside the following Figures: -

- **Figure 2.1:** Works Plan
- **Figure 2.2:** Candidate Layout

2.1.4. Baseline and assessment work is ongoing, it is anticipated that the following documents will be available alongside the next iteration of the PEIR, as part of the formal consultation process, which is anticipated to be carried out by summer 2024: -

- Draft Development Consent Order
- Schedule of Draft Requirements[1]
- Technical Guide to Scheme and detailed drawings
- Outline Construction Environmental Management Plan
- Outline Decommissioning Plan

[1] Section 120 of the PA2008 provides that a DCO may impose Requirements in connection with the development for which consent is granted. Such Requirements may correspond with conditions which could have been imposed on the grant of any permission, consent or authorisation (for example planning permission under the Town and Country Planning Act 1990 (the TCPA1990)) which would have been required for the development if it had been consented through a different regime.

- Outline Soil Management Plan
- Outline Battery Safety Management Plan
- Outline Landscape and Ecological Management Plan ('LEMP')
- Carbon Offset Assessment
- Glint & Glare Assessment
- Trenchless Method Statement

2.2. Development Summary

2.2.1. The main element of the proposal is the construction, operation, maintenance and decommissioning of a ground mounted solar park with an intended design capacity of over 50MWp (megawatts peak), and a battery energy storage facility with an export/import connection to the National Grid.

2.2.2. An operational lifespan of 40 years would be sought. The Scheme may be constructed through a single continuous phase or in multiple phases. Once fully operational, the solar farm would have the potential to provide enough low-carbon energy to meet the equivalent annual needs of over 240,000 homes[2].

2.3. Candidate Design Parameters, Design Principles, and the Rochdale Envelope

2.3.1. The need for flexibility in design, layout, and technology is acknowledged in a number of National Policy Statements to address uncertainties inherent to a scheme. This is very pertinent to solar and battery development due to the rapid pace of change in technology. As a result, any forthcoming DCO application for this Scheme will require a degree of flexibility to allow the latest technology to be utilised at the time of construction. For example, as technology advances, it is possible that solar panels could become more efficient. This in turn could require the micro-siting of ancillary equipment to reflect such changes, i.e., the final locations of cabling and the number and location of inverters and transformers. It is proposed that final detail would be secured by an appropriately worded requirement(s). The purpose of such requirements would be to: -

[2] Calculation based on 2021 generation, and assuming average (mean) annual household consumption of 3,509 kWh, based on latest statistics from Department of Energy Security and Net Zero (Subnational Electricity and Gas Consumption Statistics Regional and Local Authority, Great Britain, 2021, Mean domestic electricity consumption (kWh per meter) by country/region, Great Britain, 2021)

- Clarify the construction and operational sequencing of the Scheme;
- Demonstrate compliance with the requirements included in the Development Consent Order; and
- Demonstrate that the final detailed design remains within the parameters of the design principles and therefore the Rochdale Envelope standards considered by the Environmental Statement.

2.4. A similar approach was used for the Little Crow Solar Park Order 2022[3] which was determined through the NSIP process. As a minimum, it is expected that the following aspects of the Scheme will require design flexibility when the EIA is being carried out:

- The maximum development envelope for the type of PV module including their mounting and foundation structures.
- The maximum development envelope of supporting infrastructures such as inverters, transformers and switchgears.
- The maximum development envelope for the type and arrangement of battery energy storage systems.
- The maximum development envelope for the type and arrangements of biodiversity and green infrastructure.
- The maximum development envelope for location and arrangements of temporary construction and decommissioning compounds.
- The maximum development envelope for the location, arrangements and delivery mechanism of grid infrastructure works, including substations.
- Overall construction phasing of the development.

2.4.1. The technical chapters of the draft PEIR have therefore considered the likely significant effects arising from the worst-case parameter within the design principles identified below, any maximum and minimum parameters mentioned relate to the design principles, unless otherwise stated.

2.5. The Works Components of the Operational Scheme

2.5.1. The components of the Scheme comprise several land use zones, these are: -

[3] SI 2022 No. 436.

- Work No. 1: Solar Photovoltaic Arrays
- Work No. 2: Battery Energy Storage System
- Work No. 3: RWE 132kv/ 33KV Substations
- Work No. 4: Ecological and Landscape Mitigation and Enhancement Corridors
- Work No. 5: Electrical Car (EV) Charging Point

2.5.2. These draft Work Zones are presented on the drawing "Works Plan". The proposed descriptions of the works within each Work zone is provided below.

2.6. Work No. 1: Solar Photovoltaic Arrays

2.6.1. The design principles of the solar photovoltaics are:

- A generating station comprising arrays of ground-mounted solar panels with a gross electrical output of over 50 megawatts peak.
- All solar panels will be located within the Work No. 1 area as defined on the Works Plan.
- Total land coverage of the ground-mounted solar panels would be c 3.8 square km. Based on a wattage output of 570Wp panel, the potential maximum range for energy generation is up to 818 MWp of direct current (DC) capacity. This would equate to around 600 MW of alternating current (AC) capacity. It is noted that the environmental design parameters of the Scheme is based on the land take of panels and not their overall capacity.
- An array is a galvanised steel and anodised aluminium mounting structure with the solar panels attached to it.
- The maximum top height of the arrays from the ground will be 3.6m.
- The minimum height of the lowest part of the arrays from the ground will be 1m.
- All solar panels will be south facing.
- Panels may be mono-facial or bifacial.
- Solar panels will be either dark blue, grey, black or similar in colour.
- Indicative slope of the solar panels from horizontal would be 15 to 35 degrees.
- Internal access track of permeable construction with provision of new culverts or low level bridges to cross existing ditches.

- Typical minimum distance between edge of the arrays, to the 1.8m high perimeter fencing, would be 3m.
- Biodiversity would be promoted within and around the arrays.
- CCTV positioned along the perimeter of the arrays on 3m high poles.
- Installation of arrays by driving steel pin piles, screw piles or ballast/concrete pads.
- Planting and ecological works between and underneath the panels, incorporating the biodiversity objectives and management prescriptions in accordance with a proposed Outline LEMP.
- Central inverters and Medium Voltage ('MV') Power Stations.
- Set back distance of 15m in relation to woodland habitats.
- Set back of 9m to drains managed by the Internal Drainage Board.

2.6.2. The solar panels would convert solar irradiance into direct current (DC) electricity. A solar panel consists of a layer of silicon cells, an anodised aluminium frame and various wiring to allow current to flow from the silicon cells. Silicon is a non-metal with conductive properties that allow it to absorb and convert sunlight into electricity. When light interacts with a silicon cell, it causes electrons to be set into motion, which initiates a flow of electric current[4]. The solar panels are connected in series and set out on south facing arrays. The arrays will be laid out in multiple parallel rows running east to west across the various field enclosures. The mounting structure and solar panels will be static. The distance / gap between the arrays would respond to topography but would typically be around 4m. Land between and beneath the arrays will be used for biodiversity enhancements and seasonal sheep grazing. If sheep grazing is not possible then grassland will be managed through a grass cutting regime.

2.6.3. The mounting structure will be supported at intervals by double mounted posts set approximately 3.75m apart. The posts will be pushed into the ground with a small plant rig, to depths between 1.5m to 3m and this will be guided by localised ground conditions. Ballast foundation design could also be used.

2.6.4. If any areas of archaeological interest are identified within the work area, then consideration will be given to the use of non-intrusive installation method, where the posts will be fixed into concrete pads resting on top of the ground.

[4] It was first discovered in 1839 by Edmond Becquerel and can be generally thought of as a characteristic of certain materials (known as semiconductors) that allows them to generate an electric current when exposed to sunlight.

2.6.5. The insulated DC cables from the solar panels will be routed in channels fixed on the underside of the mounting structure. The DC string cables will run along the entire underside of each row. The electrical cabling from each array will be concealed through shallow trenches linking the solar panels to the inverters and transformers and then to the main substation. The cable trench will typically be between 0.5m to 1.1m in depth and up to 1.0m wide. The cable trench may also carry earthing and communications cables and will be backfilled with fine sands and excavated materials to the original ground level.

2.6.6. The inverters, transformers and associated substation & switch gear are required to convert the DC energy produced by the arrays into AC energy, these will be located across the Works area. The AC cable will also be laid in trenches and would run directly to the client substation compound. The cabling from arrays will be connected to Central Inverter & MV Power Station. Cabling, from here the cabling would continue to the relevant RWE substation (see Work No. 3).

2.6.7. The arrays would be set within perimeter fencing up to 1.8m in height with wooden supporting posts placed at intervals of c. 3.5m.

2.6.8. The perimeter fencing would be either green or galvanised aluminium in finish and would typically follow the outer field boundaries containing the solar panels. The minimum distance between the edge of the arrays and the perimeter fence would be 3m. A CCTV system mounted on poles will be positioned at intervals along the inside face edge of the perimeter fencing (between the fence and the arrays).

2.7. Work No 2: Battery Energy Storage System (BESS)

2.7.1. A Battery Energy Storage System ("BESS") will be an associated part of the electrical infrastructure of the scheme. A BESS is an electrochemical device that is charged by collecting energy from the grid or a power plant, such as the solar arrays, and then discharges that energy at a later time to provide electricity or other grid services when needed.

2.7.2. The BESS consists of containerised battery units that can store energy and are able to release or absorb energy from the power network. Being able to absorb and release energy, the battery energy storage system at Tween Bridge would be used to contribute towards the frequency balancing services, where the power is being generated or absorbed statically or dynamically depending on the system frequency. When there is not enough power, batteries are discharged to balance under frequency preventing black and brown outs. To balance over frequency batteries are charged to prevent dangerous spikes across electricity infrastructure. The candidate BESS would be connected directly to the substation and is therefore termed an AC-coupled system. The Applicant is also exploring the option of providing a DC-coupled BESS, these are batteries located between the solar arrays and their inverters.

2.7.3. The design principles of the BESS are: -

- A BESS contained within a gated compound.

- The candidate storage capacity is up to 400MW/800MWh.
- Total land coverage of the BESS compound would not exceed 89,400 m sq.
- The system would be made secure by a 3m high gated palisade fence.
- The BESS system would comprise battery storage containers. The specific plant arrangement of the BESS system is not yet fixed, typically, the battery containers would have a maximum length of 17m, maximum width of 3m and a maximum height of 4m.
- The battery containers could be dark green or similar in colour.

2.7.4. For geotechnical design purposes a range of array foundations are available, dependent on the soil conditions in various parts of this very large site. Piled foundations are the most likely option for the battery energy storage system.

2.8. Work No. 3: RWE 32kv/33kv Substations

2.8.1. The candidate design provides for 5 satellite RWE substations and one main RWE substation which is currently positioned to the immediate south of the BESS (Work No. 2). Each satellite substation will have a development footprint of c. 36m by 36m. These are necessary to step up the voltage of the electricity delivered by the Solar PV from 33kV to 132kV for onward transmission to the main RWE substation where the 132kV is converted to 400kV for connection to the National Grid circuit.

2.8.2. Electric cabling will be laid to link together the five satellite substations to the RWE's main (or primary) substation located next to the BESS. RWE's main substation would have a development footprint of c. 220m by 156m. From here, cabling works would continue to connect to the proposed National Grid major substation. Electrical cabling connecting the client substations would be underground. The majority of the cabling linking the client substations would be laid by open trench technique. The dimensions and depth of the trenches would vary depending on the amount of cabling and ground conditions, typically they would be up to 1.5m in depth. The process will follow a soil management plan to ensure that the soil structure and quality are not degraded as part of the construction process. The location of RWE's main substation may alter subject to the location of the National Grid substation (see section 2.11 below). Piled foundations are the most likely option for RWE's substations. A defensive bund is also proposed to be sited around the vulnerable infrastructure on site, alternatively their finished floor levels can be raised above the flood risk levels.

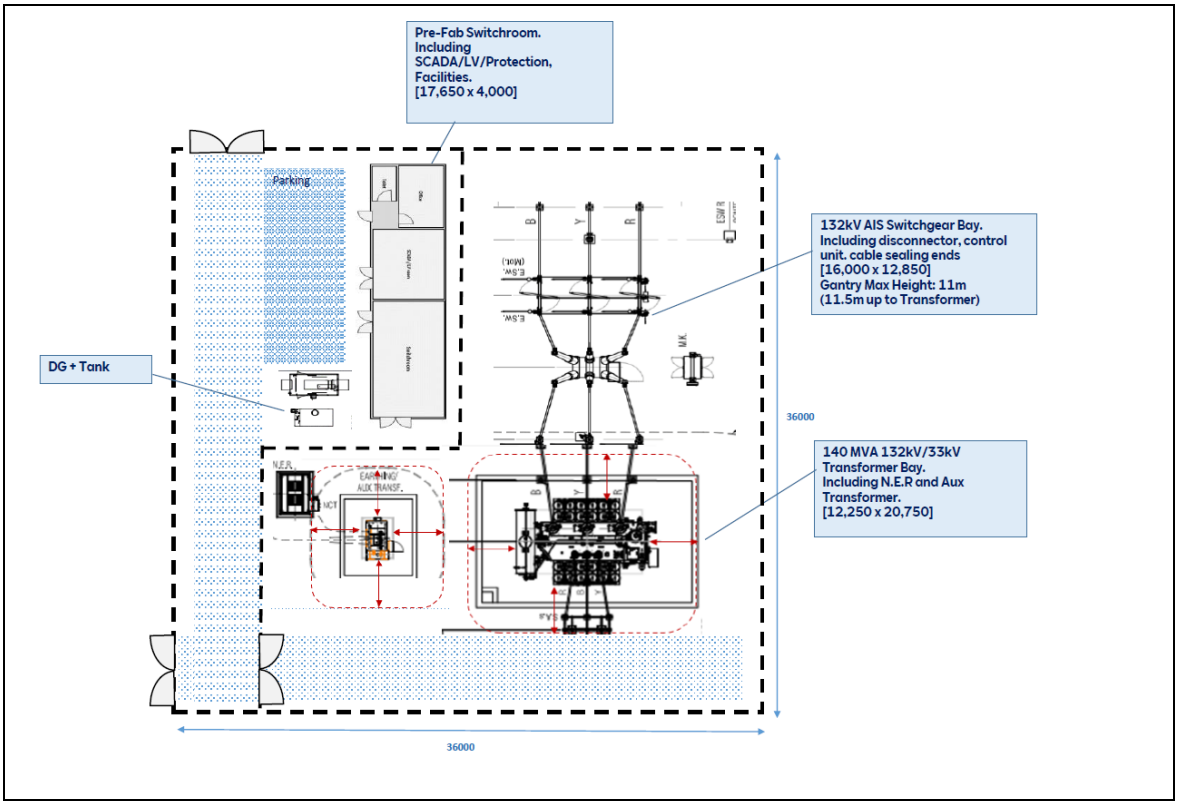
2.8.3. The likely plant arrangements for the 5 No. satellite substations include: -

- Gated compound with Security fencing – 2.4m high palisade fencing with an electrical fence backing of 3m high from ground level.
- Car Parking.

- Pre-fabricated building containing switchroom, office and welfare facilities, measuring c. 17.7m by 4m.
- 140MVA 132kv/3kv Transformer Bay, measuring 12,25m by 20.75m.
- 132kv switchgear, including disconnector, control unit, sable seal ends, measuring 16m by 12.9m with maximum gantry height of 11m.
- Standby diesel tank and generator.

2.8.4. The indicative layout of the satellite substation is provided at Illustration 2.1

Illustration 2.1 – RWE satellite substation

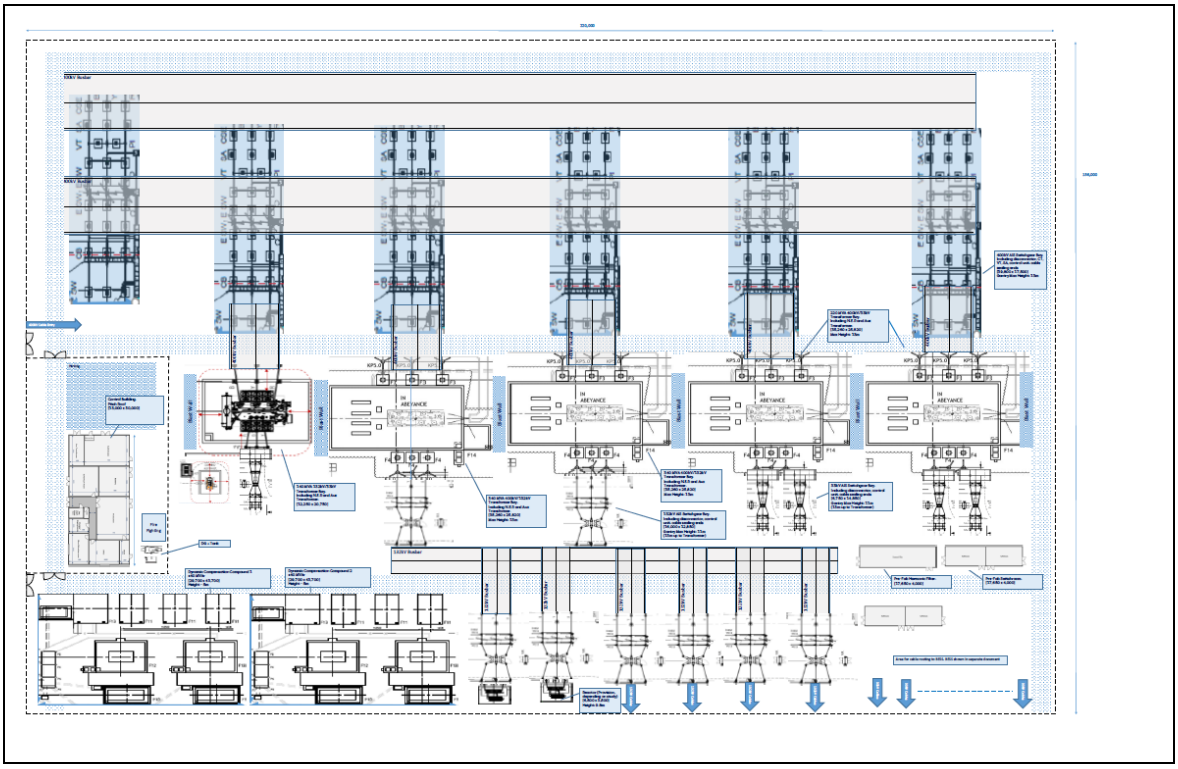


2.8.5. The likely plant arrangement for the RWE's main substation include: -

- Gated compound with Security fencing – 2.4m high palisade fencing with an electrical fence backing of 3m high from ground level.
- Control building measuring 13m by 30m with pitched roof and ridge height of 6.3m.
- Standby diesel tank and generator.
- Car parking.
- 6 No. 400kv switchgear bay, including disconnectors, control unit and cable sealing ends measuring 39.8m by 17.5m with a gantry height of 13m.
- 1 No. 140MVA 132kv/3kv Transformer Bay, measuring 12,25m by 20.75m.
- 4 No. 340MVA 400kv/132kv Transformer Bays, measuring 35.26m by 25.82m with a maximum height of 8m.
- 5 No. 33KV Switchgear Bay including disconnector, control unit and cable sealing ends, measuring 6.76m by 14.85m with a gantry height of 11m & 13m up to transformers.
- 1 no. Pre-fabricated switchroom, measuring 17.65m by 4m.
- 1 no. Pre-fabricated harmonic filter, measuring 17.65m by 4m.
- 2 No. Dynamic Compensation compounds, each measuring 29.7m by 43.7m with a height of 5m.
- 2 No. 132kv AIA switchgear bay including disconnector, control unit, cable sealing ends, measuring 16m by 12.85m with a gantry height of 11m and a transformer height of up to 13m.
- 140MVA 132kv/3kv Transformer Bay, measuring 12.25m by 20.75m.
- 132kv switchgear, including disconnector, control unit, sable seal ends, measuring 16m by 12.9m with maximum gantry height of 11m.

2.8.6. The indicative layout of the main substation is provided at Illustration 2.2

Illustration 2.2 – RWE main Substation



2.9. Work No. 4. Ecological and Landscape Mitigation and Enhancement Corridors

2.9.1. The development proposal presents considerable opportunities for landscape and biodiversity mitigation and enhancements.

2.9.2. Ecological and biodiversity measures are promoted across the entire Order Limits area and this is augmented within Work No. 4. Within this area, a number of measures and features are proposed for the benefit of biodiversity. This includes the planting of new hedgerows and bolstering of existing field boundaries to increase coverage of this habitat, provide effective landscape screening, and to improve connectivity of the hedgerow and woodland network across and beyond the Order Limits.

2.10. Work No. 5. Electrical Car (EV) Charging Point

2.10.1. The Applicant is exploring the option of providing an EV charging point with the Order Limits. The Applicant has set aside land to the immediate east of Moor Edges Road and north of Moor Owners Road for the provision of an EV charging hub and vehicle parking. Access to the EV

charging station would be secured via the creation of a new vehicular access off Moor Edges Road. Design principles for the EV charging point are: -

- Off street EV parking bays.
- New dedicated access off Moor Edges Road.
- EV cabinets.
- Road Signage.
- Street lighting.

2.10.2. The EV charging points would be made available to local community. Consideration would be given to the use of a canopy for the charge points.

2.11. National Grid Substation

2.11.1. RWE have accepted a grid offer from National Grid. The grid connection offer secured for the Scheme is independent of any other grid connection offer relating to other potential energy projects in the same region. The grid connection agreement with National Grid is to connect the Scheme to the existing 400KV Drax to Keady overhead line via the construction of a new 400KV substation. The connection date to the new substation is currently scheduled to be in 2029. This is subject to construction of new substation and completion of the necessary grid reinforcement works by National Grid. A 400Kv underground cable will be used to connect the Scheme to the new National Grid substation.

2.11.2. The authorised transmission export capacity will be 400MW with a further 200MW available in 2032, giving a total export capacity of 600MW.

2.11.3. The exact location of the new National Grid substation will be subject to a separate location study and consenting application by National Grid.

2.12. Outline Landscape and Ecological Management Plan

2.12.1. An Outline Landscape and Ecological Management Plan (LEMP) will be prepared and this will apply to the entire site. The objectives for the Outline LEMP will be discussed with the host local planning authorities and Natural England. The Applicant envisages that the Outline LEMP will provide measures:-

- To create new grassland habitats through seeding existing arable land with locally appropriate native species which complement and contribute towards the biosphere / biodiversity management plan of host planning authorities.
- For hedgerow planting.

- To manage the grassland to establish a diverse sward beneath the arrays.
- To manage grassland outside the array for wildlife.
- To manage areas to provide suitable conditions for arable flora.
- To manage hedgerows to provide habitat for a range of species and ensure visual screening of the site from the footpath.
- To manage aquatic habitats as necessary.
- To provide sheltering features around the site for nearby populations of bats, birds and other notable faunal species.
- To monitor the site and assess the success of management and adherence to the prescribed management.
- Provision of a 15m buffer where the development site adjoins Scheduled Ancient Woodland.

2.13. Trenchless Cable Works

2.13.1. Within the Order Limits, there are a number of locations that may require trenchless approach to the laying of cables. At these locations trenchless techniques, such as boring, micro-tunnelling, or moling methods are likely to be undertaken. The Applicant has commissioned technical assessments and ground investigations works to inform final design detail. For each location where a trenchless technique may be required a launch pit will have to be created to ensure the equipment can be used safely and the cable installed correctly. The maximum extent of these launch pits is expected to be around 30m x 30m.

2.13.2. The potential locations where trenchless techniques may be utilised are listed below.

- M180 motorway crossing.
- Stainforth and Keadby Canal.
- South Humberside Main Line Railway.
- High Level Bank Road (A18).

2.13.3. The use of trenchless or other appropriate method for crossing Internal Drainage Board (IDB) Managed Watercourses and other watercourses and ditches are also being explored by the Applicant.

2.14. Operational Lifespan

2.14.1. An operational lifespan of 40 years would be sought.

2.15. Operational Phase

2.15.1. During the operational phase, the activities on site would amount to servicing and maintenance of plant and equipment associated with the Scheme, including solar panels, inverters, transformers, substation compound and vegetation and biodiversity management. Landscape, ecological and biodiversity benefits could include the installation of barn owl boxes, bird nesting boxes, bee hives, log piles and other hibernacula such as small buried rubble piles suitable for reptile species, amphibians and insect life. Land between and beneath the panels would be used for biodiversity enhancements and agricultural use would continue through sheep grazing. Tree planting would be introduced along field boundaries where required.

2.16. Statutory Undertakers

2.16.1. The provision of easements for the existing services that traverse the site, such as water pipes and overhead powerlines, will be incorporated into the layout design. The application documents will include a description of how easements will be maintained through the draft Development Consent Order.

2.17. Temporary Diversion of Public Right of Way ('PRoW')

2.17.1. Temporary diversion of a sections of PRoWs Thorne 19 and CROW 21, which traverse the site, may be required during the construction and decommissioning periods in order to separate and keep apart members of the public from the construction / decommissioning vehicles and machinery. If required, it is proposed that any temporary closure would be secured through the DCO and during the duration of the temporary closure an alternative path would be provided. Alternatively, where construction vehicles crossing the PRoW cannot be prevented, a banksman can be used to ensure the continued safe passage of the public on the definitive right of way.

2.18. Access and Egress

2.18.1. Due to the large-scale nature of the Scheme, and it being spread over a number of separate land parcels, there are a total of 12 access points proposed for the scheme. Details of the access are provided in the Draft Construction Traffic Management Plan (Appendix 12.2), the locations are summarised in Table 2.1

Table 2.1 – Proposed Point of Access During the Construction Phase

Access Ref	Accessed from	Details	Ref
A	Coulman Road	Existing industrial access	Figure 3.2 of Draft CTMP
B	Moor Edges Road	Existing industrial access	Figure 3.3 of Draft CTMP
C	High Bridge Road	Existing agricultural access	Figure 3.4 of Draft CTMP
D	Marsh Road	Existing agricultural access	Figure 3.5 of Draft CTMP
E	East side of the A18, Tudworth Road approx. 350m south of M180	New access	Figure 3.6 of Draft CTMP
F	South side of A18, High Levels Bank	Existing agricultural access	Figure 3.7 of Draft CTMP
G	South side of A18, High Levels Bank	Existing agricultural access	Figure 3.8 of Draft CTMP
H	South side of A18 to west of Jaque's Bank	Existing agricultural access	Figure 3.9 of Draft CTMP
I	Unnamed road east of High Levels Bank	Existing agricultural access	Figure 3.10 of Draft CTMP
J	Unnamed road east of High Levels Bank	Existing agricultural access	Figure 3.11 of Draft CTMP
K	Low Levels Bank	Existing agricultural access	Figure 3.12 of Draft CTMP
L	Green Bank / Clay Bank Road	Existing agricultural access	Figure 3.13 of Draft CTMP
M	North side of A18 west of Jaque's Bank	Existing agricultural access	Figure 3.14 of Draft CTMP

2.19. Construction Period

2.19.1. The Environmental Statement will consider the options of the scheme being constructed through either a single phase or a multiple of phases (i.e., phased approach to the construction of the solar arrays / development parcels). If all elements were constructed at the same time, then the construction phase would last up to 30 months. Alternatively, the construction of the Scheme would coincide with the phased connection dates from National Grid. The Environmental Statement will provide a full description of the potential construction, operational and decommissioning variances. All variances will be assessed within the Environmental Statement.

2.19.2. A main temporary construction compound will likely be established close to the site entrance for each area of development. Smaller temporary compounds will be located across the site as the scheme is built out. Detailed description of the construction compounds including their size and duration required on site will be presented in the next iteration of the PEIR. Depending on weather conditions during construction, temporary roadways (e.g., plastic matting) may be utilised to access parts of the Scheme.

2.20. Decommissioning Phase

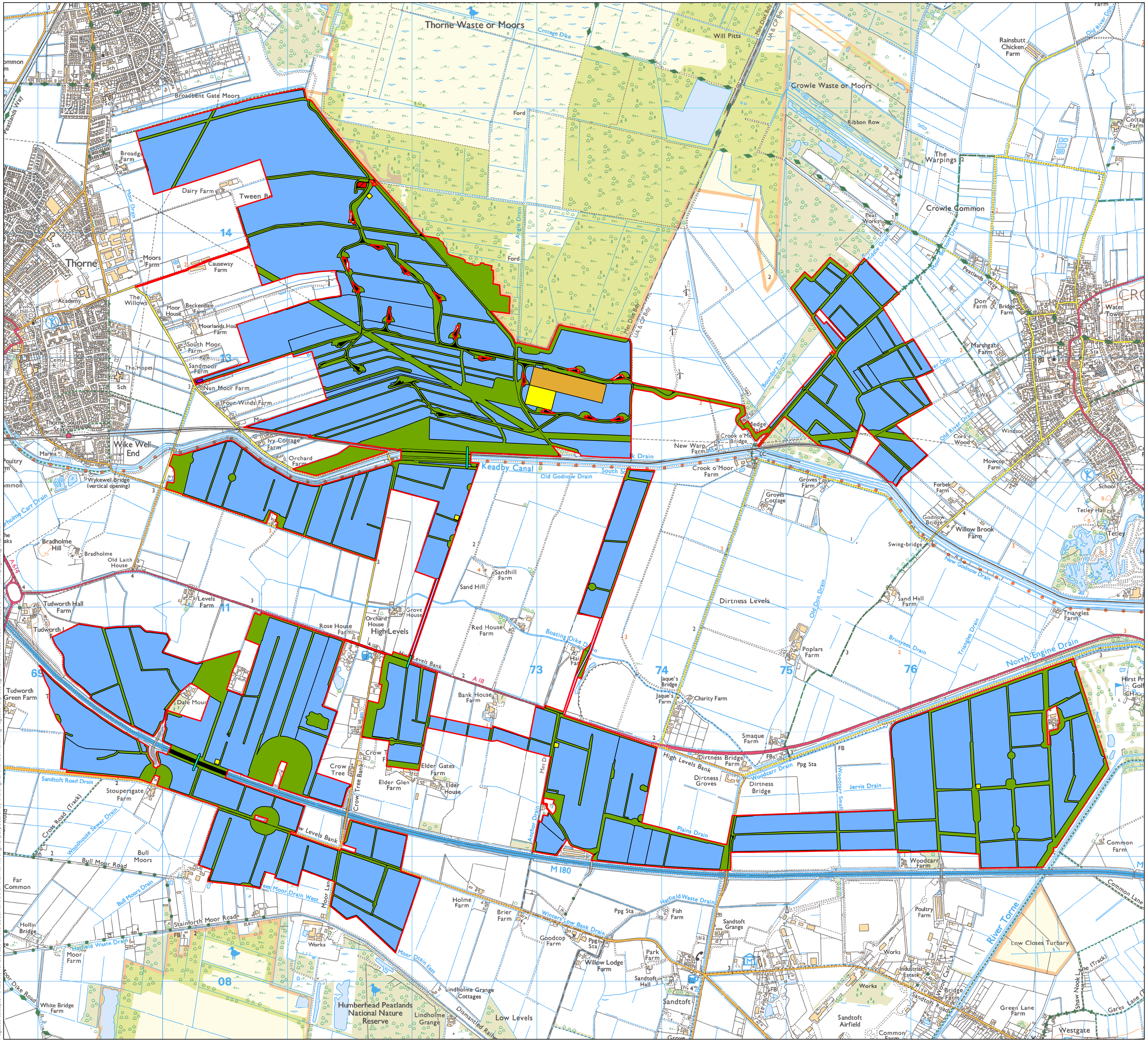
2.20.1. Within 12 months of the planned end to energy generation and storage at the site, a decommissioning strategy would be submitted to the relevant planning authority(s) for approval. The decommissioning strategy would detail how plant and machinery located within the Order Limits would be removed. The decommissioning strategy will follow the principles laid out in the Outline Decommissioning Strategy. The decommissioning period is expected to take up to 2 years.

2.20.2. The scheme will be decommissioned at the end of its approved operational phase. All PV modules, mounting poles, cabling above 1m below ground (on and off site) (any cabling buried 1m+ below ground will not be removed at decommissioning), substations, energy storage equipment, inverters, transformers etc would be removed from site. These items would be recycled or disposed of in accordance with good practice and market conditions at the time.

2.20.3. The exception to this is the National Grid substation and its ancillary infrastructure (such as the access tracks), which will remain in perpetuity or until such time as it is decommissioned by National Grid Electricity Transmission. Temporary diversion of the PRoW traversing the Order Limits may also take place during decommissioning.

2.20.4. The effects of decommissioning are often similar to, or to a lesser magnitude than, the construction effects and will be considered where possible in the relevant sections of the subsequent ES. However, there can be a high degree of uncertainty regarding decommissioning as engineering approaches and technologies evolve over the operational life of the scheme. After completion of the restoration works, an aftercare period may be required. This would be to check the condition of the soil and grass (or other crop); and amelioration work would be undertaken as necessary, e.g., infilling of settlement hollows, subsoiling to improve soil structure and to correct any patchy areas of poor growth.

FIGURE 2.1 WORKS PLAN



KEY

- DRAFT ORDER LIMITS (APPLICANT'S OWN REFERENCE REV P - 13/06/23)
- EXISTING WIND TURBINE SUBSTATION
- EXISTING ROADS, TRACKS AND HARDSTANDINGS
- WORK NO. 1: SOLAR PHOTOVOLTAIC ARRAYS INDICATIVE COMBINED SOLAR ARRAYS AND ECOLOGICAL AND LANDSCAPE ENHANCEMENT AREAS.
- WORK NO. 2: INDICATIVE BATTERY ENERGY STORAGE SYSTEM
- WORK NO. 3: INDICATIVE CLIENT SUBSTATIONS
- WORK NO. 4: INDICATIVE ECOLOGICAL AND LANDSCAPE MITIGATION AND ENHANCEMENT AREAS
- WORK NO. 5: ELECTRICAL CAR (EV) CHARGING AREA

OTHER PROPOSALS

- TRENCHLESS CABLE WORKS
- OPEN TRENCH CABLE WORKS

REVISIONS:
A - 23/08/23 - REMOVED DRAFT NGET SUBSTATION
B - 31/08/23 - AMMENDED SITE LAYOUT AND CLIENT SUBSTATION
C - 12/09/23 - UPDATED CLIENT SUBSTATIONS

WORKS PLAN

TWEEN BRIDGE SOLAR

CLIENT
RWE

DATE	DRAWN	APPROVED	SCALE
12/09/2023	RL	HS	1:30,000@A3

SHEET	REVISION	DRAWING NUMBER
-	C	P21-3484_23

N 0 — 1 km

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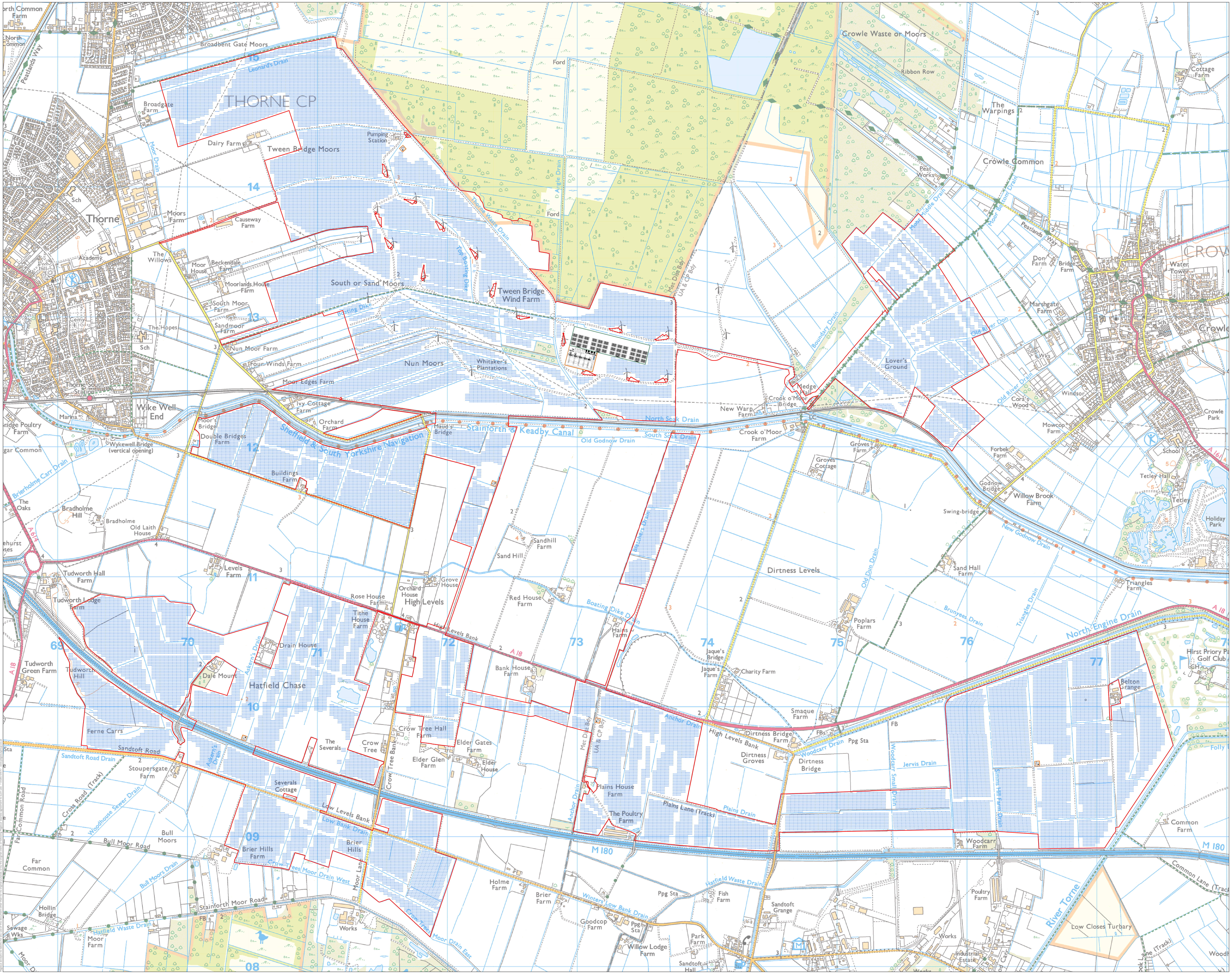
FIGURE 2.2 CANDIDATE LAYOUT



KEY

- DRAFT ORDER LIMITS
- SITE LAYOUT
- INDICATIVE BATTERY ENERGY STORAGE SYSTEM
- INDICATIVE CLIENT SUBSTATIONS

OTHER_SUB_POLY

TYPE

- ACCESS
- FENCING
- INFRASTRUCTURE
- SUPPORT BUILDINGS
- FOOTPRINT

MAIN_SUB_POLY

TYPE

- ACCESS
- FENCING
- INFRASTRUCTURE
- BLAST WALL
- SUPPORT BUILDING
- FOOTPRINT

BESS_POLY

TYPE

- BATTERY SKID
- SINGLE PCS/MV TX SKID
- SUB-MV SWITCHGEAR HOUSING
- BATTERY/SUB-MV S/G BLOCK

REVISIONS:
A - 12/09/23 - UPDATED SUBSTATIONS AND BESS

CANDIDATE LAYOUT PLAN

TWEEN BRIDGE

CLIENT
RWE

DATE	DRAWN	APPROVED	SCALE
12/09/2023	RL	HS	1:13,000@A1

SHEET	REVISION	DRAWING NUMBER
-	A	P21-3483_27

N ↑ 0 — 0.5 km

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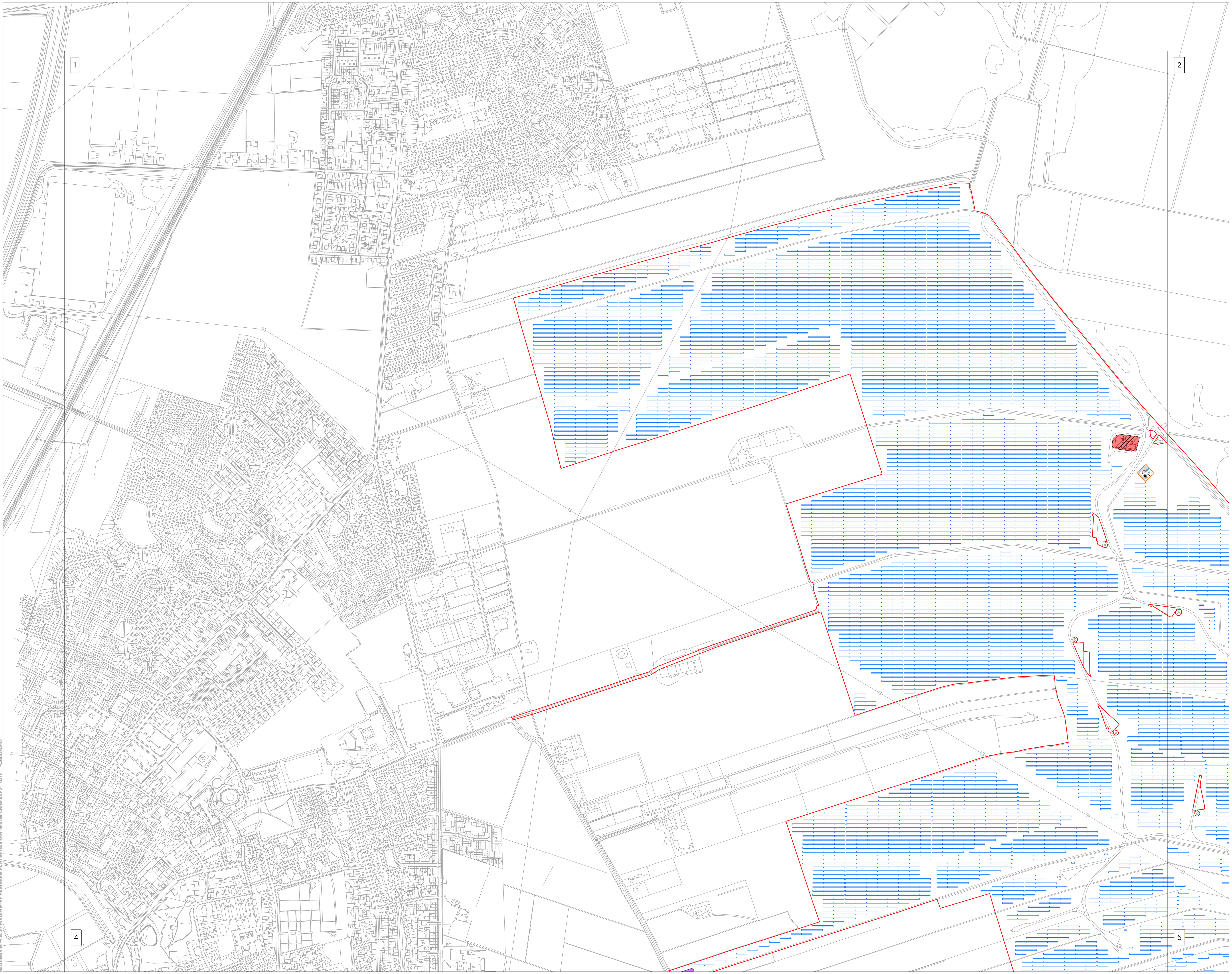

KEY

- DRAFT ORDER LIMITS (REV P - 13/06/23)
- SITE LAYOUT
- INDICATIVE BATTERY ENERGY STORAGE SYSTEM
- INDICATIVE CLIENT SUBSTATIONS
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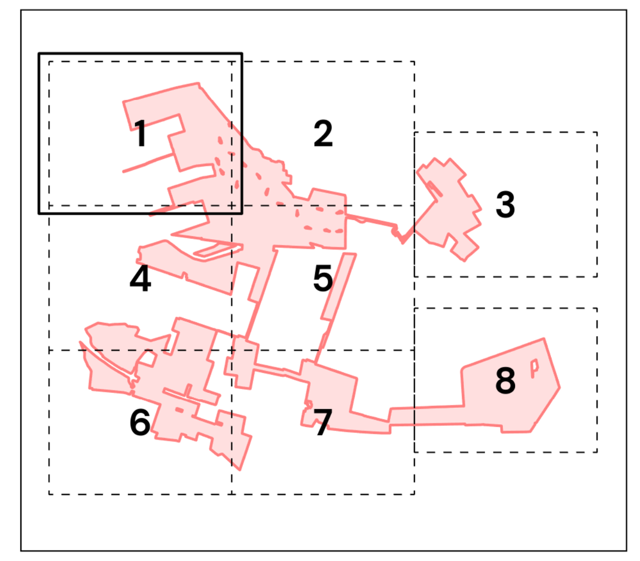
- Electrical Car (EV) Charging Area



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DETAILED SITE LAYOUT MAP SERIES

TWEEN BRIDGE SOLAR

CLIENT
RWE

DATE	DRAWN	APPROVED	SCALE
28/09/2023	RL	GR	1:5,000@A3

SHEET	REVISION	DRAWING NUMBER
1 OF 8	D	P21-3484_22_D

N
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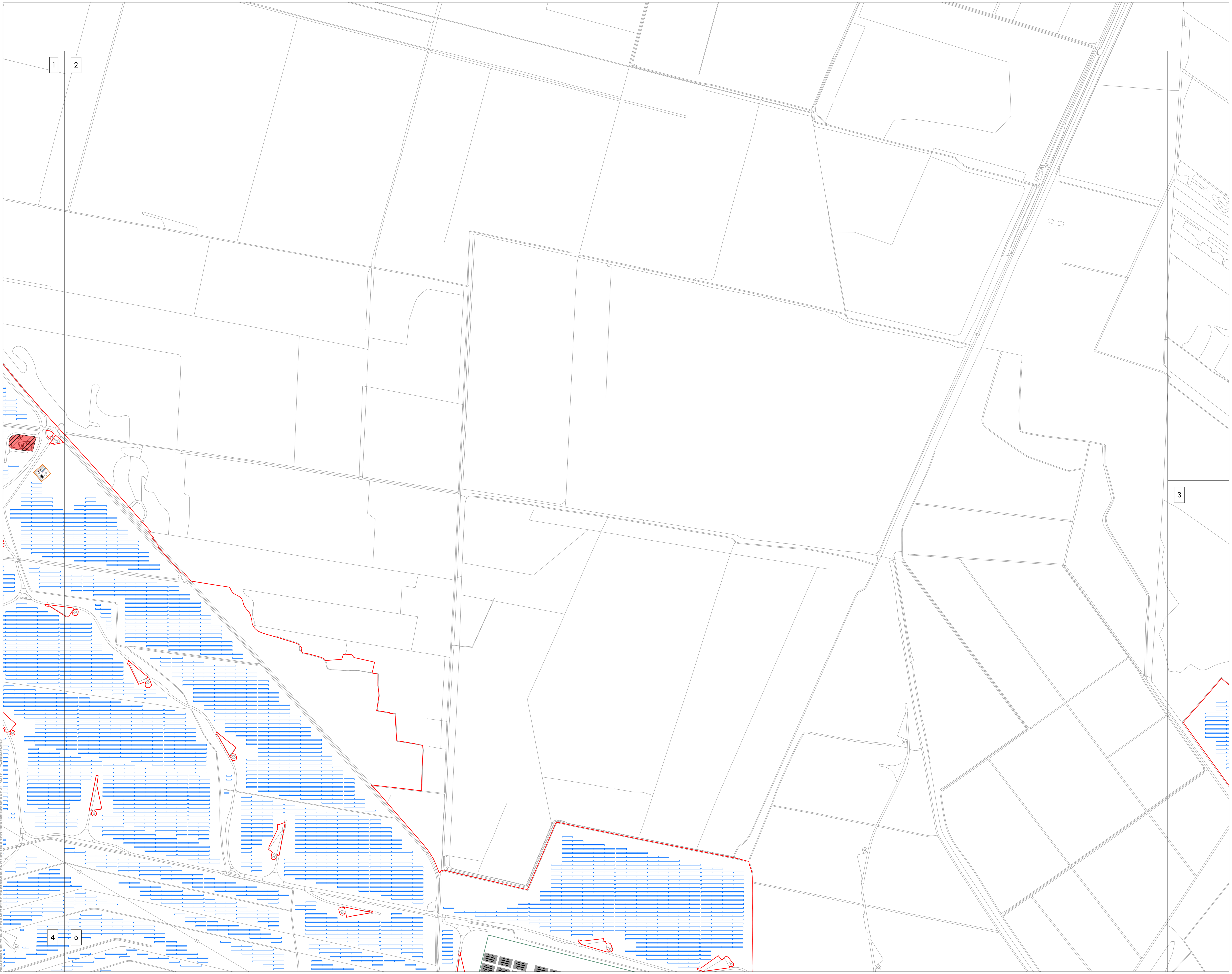
PEGASUS GROUP



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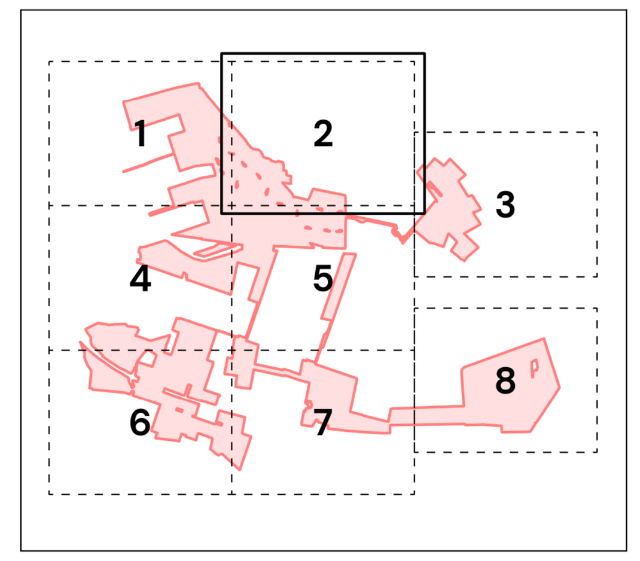

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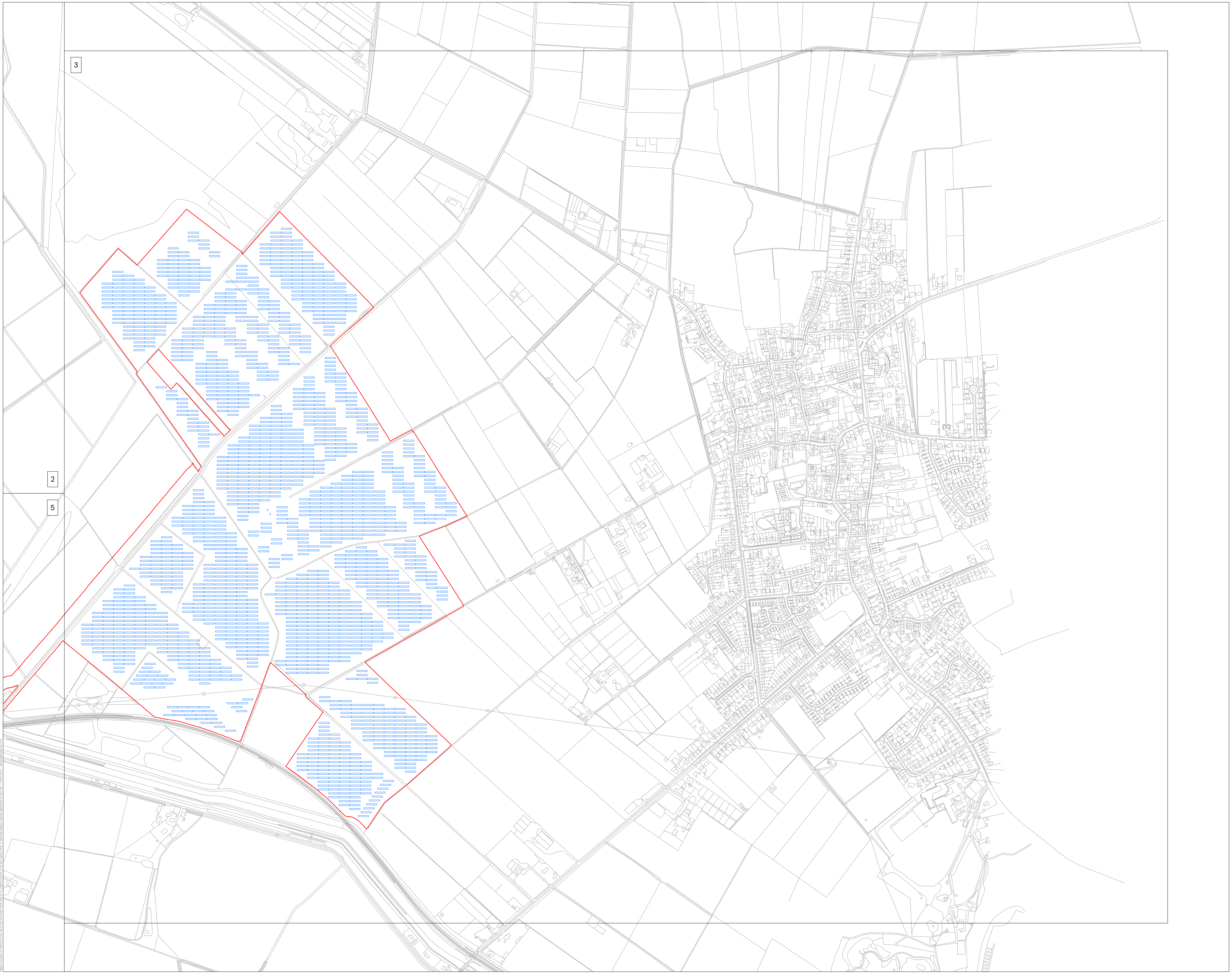
SHEET	REVISION	DRAWING NUMBER	
2 OF 8	D	P21-3484_22_D	

N

0 0.1 km

PEGASUS GROUP



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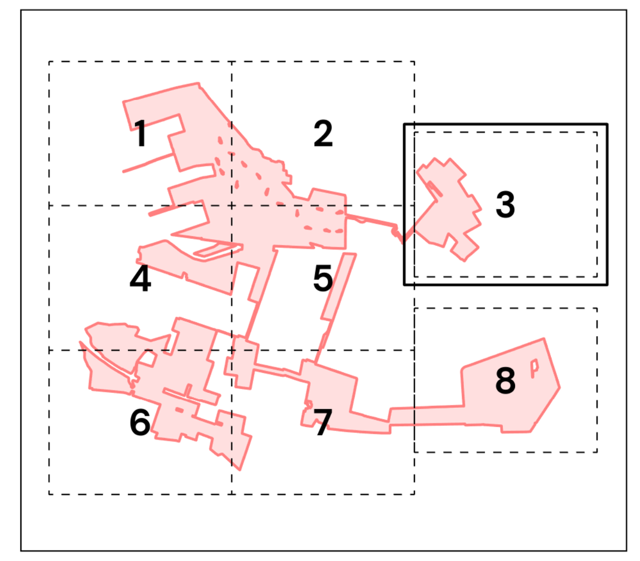

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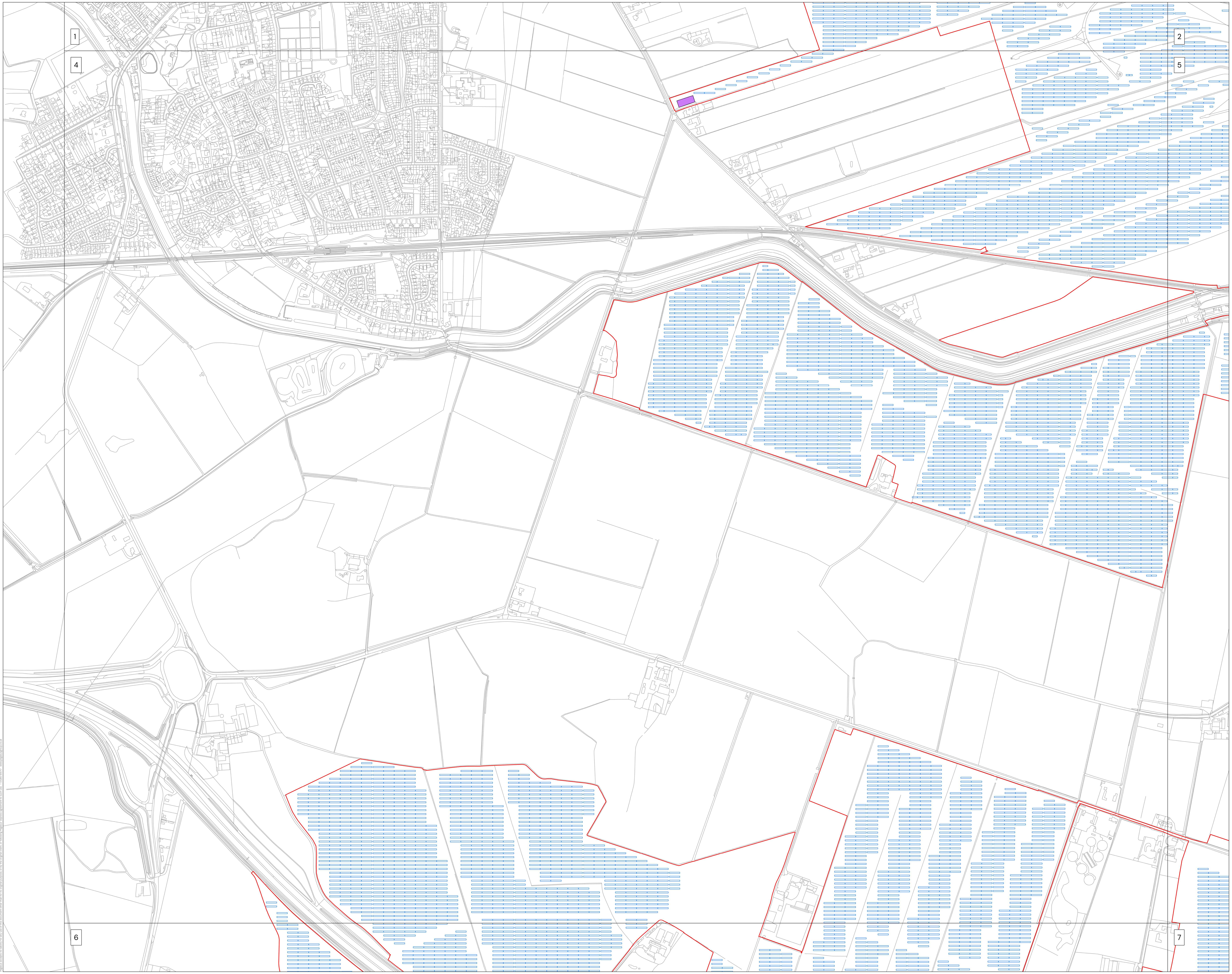
3 OF 8	D	P21-3484_22_D

N

0 0.1 km

PEGASUS GROUP



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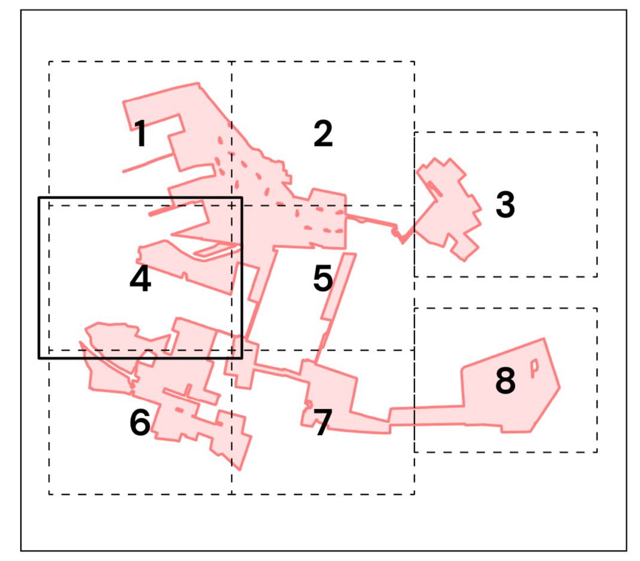

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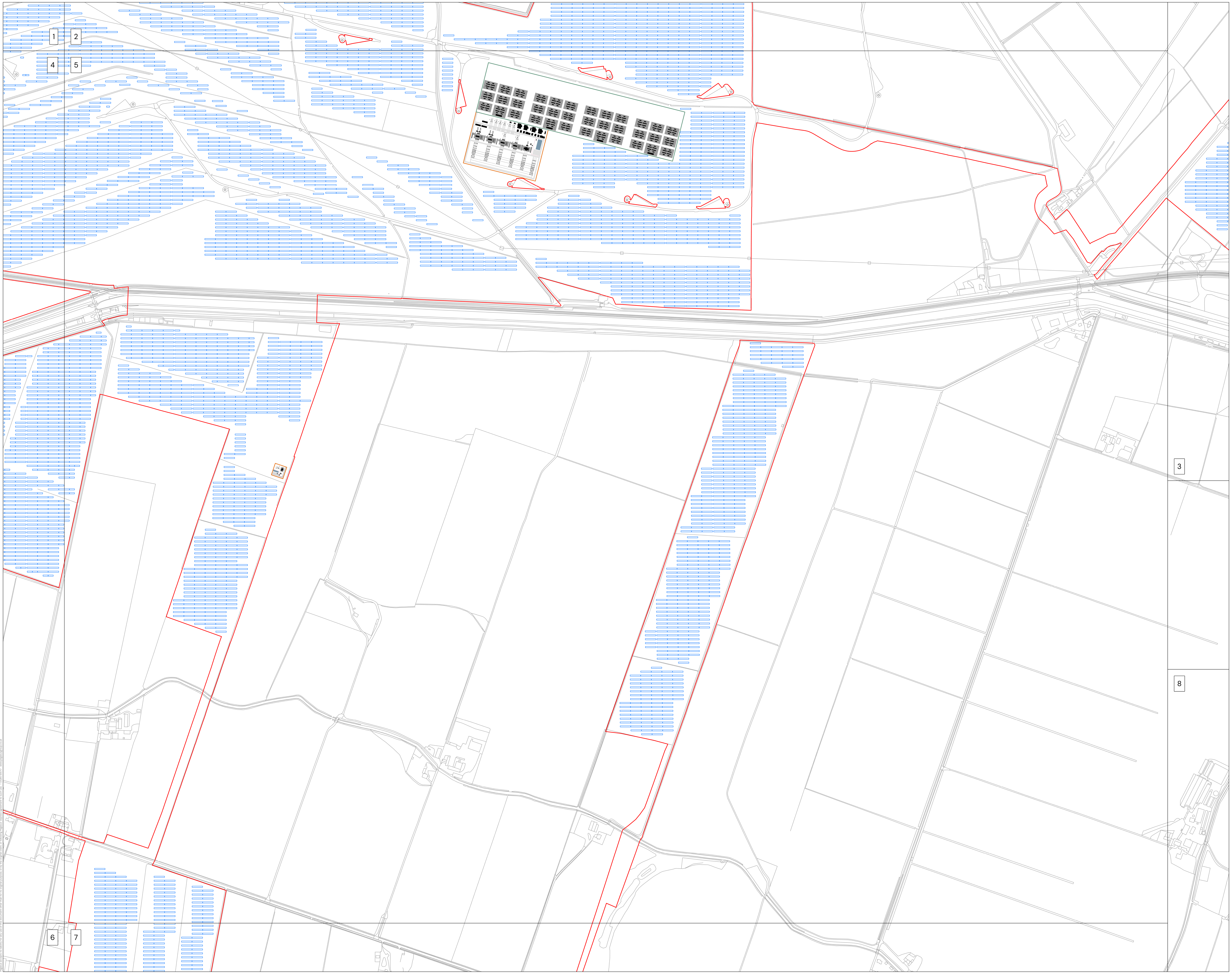
4 OF 8	D	P21-3484_22_D

N
0 0.1 km

PEGASUS GROUP



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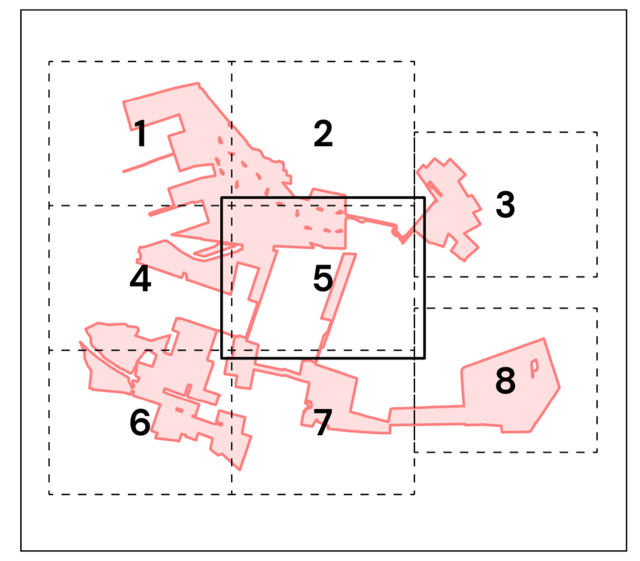

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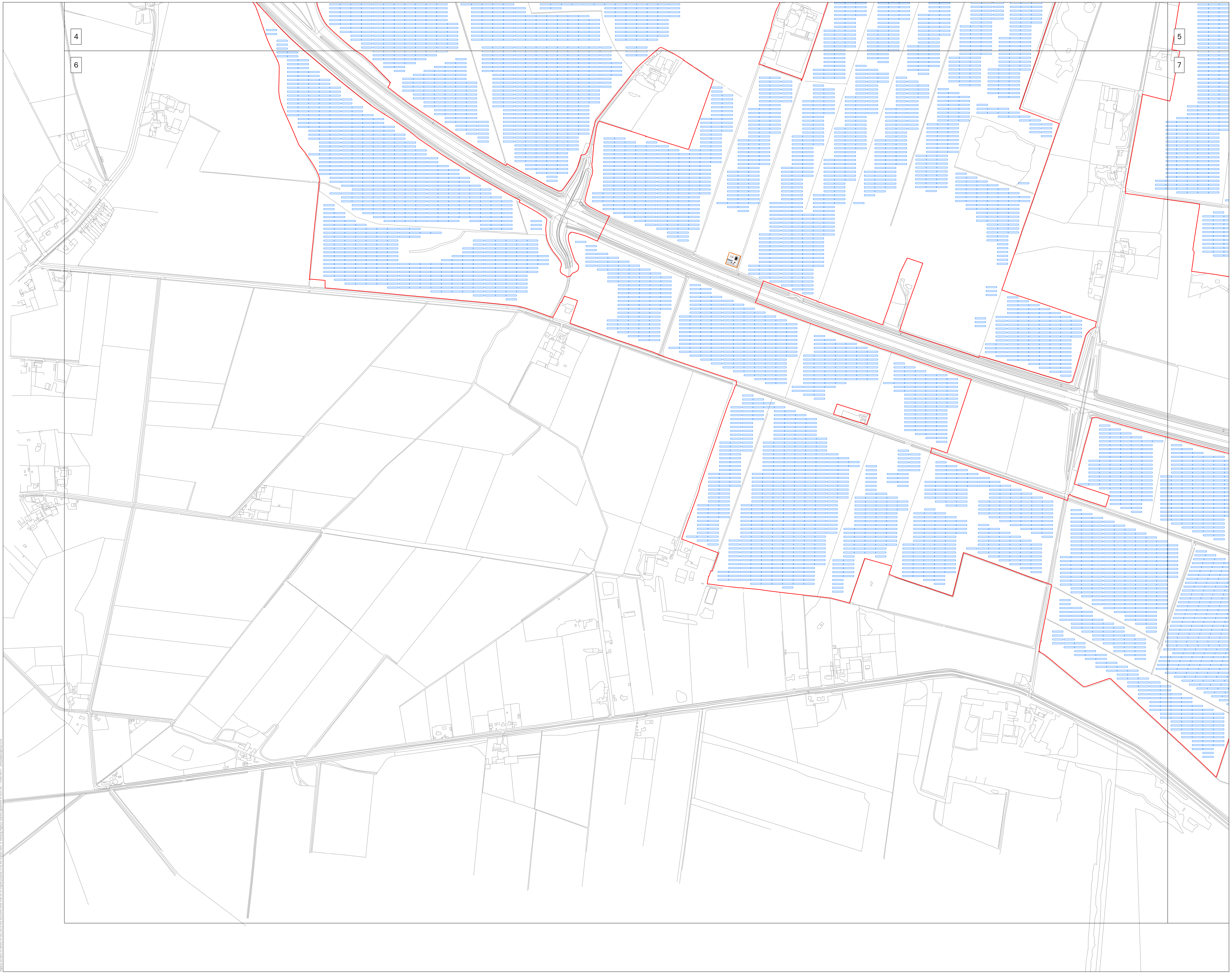
5 OF 8	D	P21-3484_22_D	

N

0 0.1 km

PEGASUS GROUP



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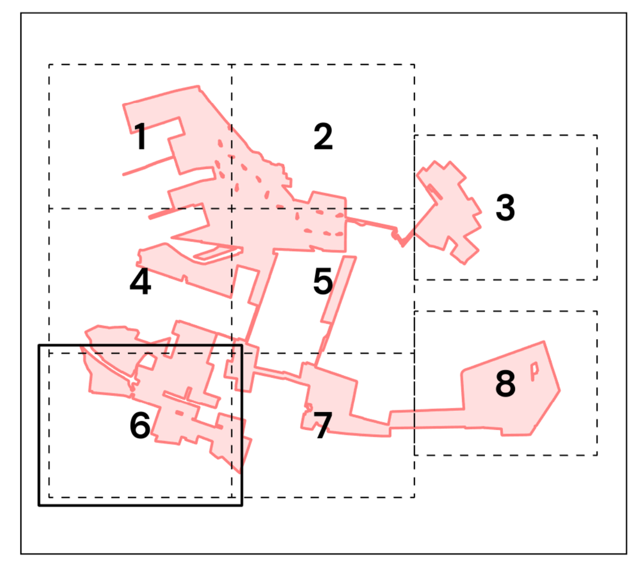

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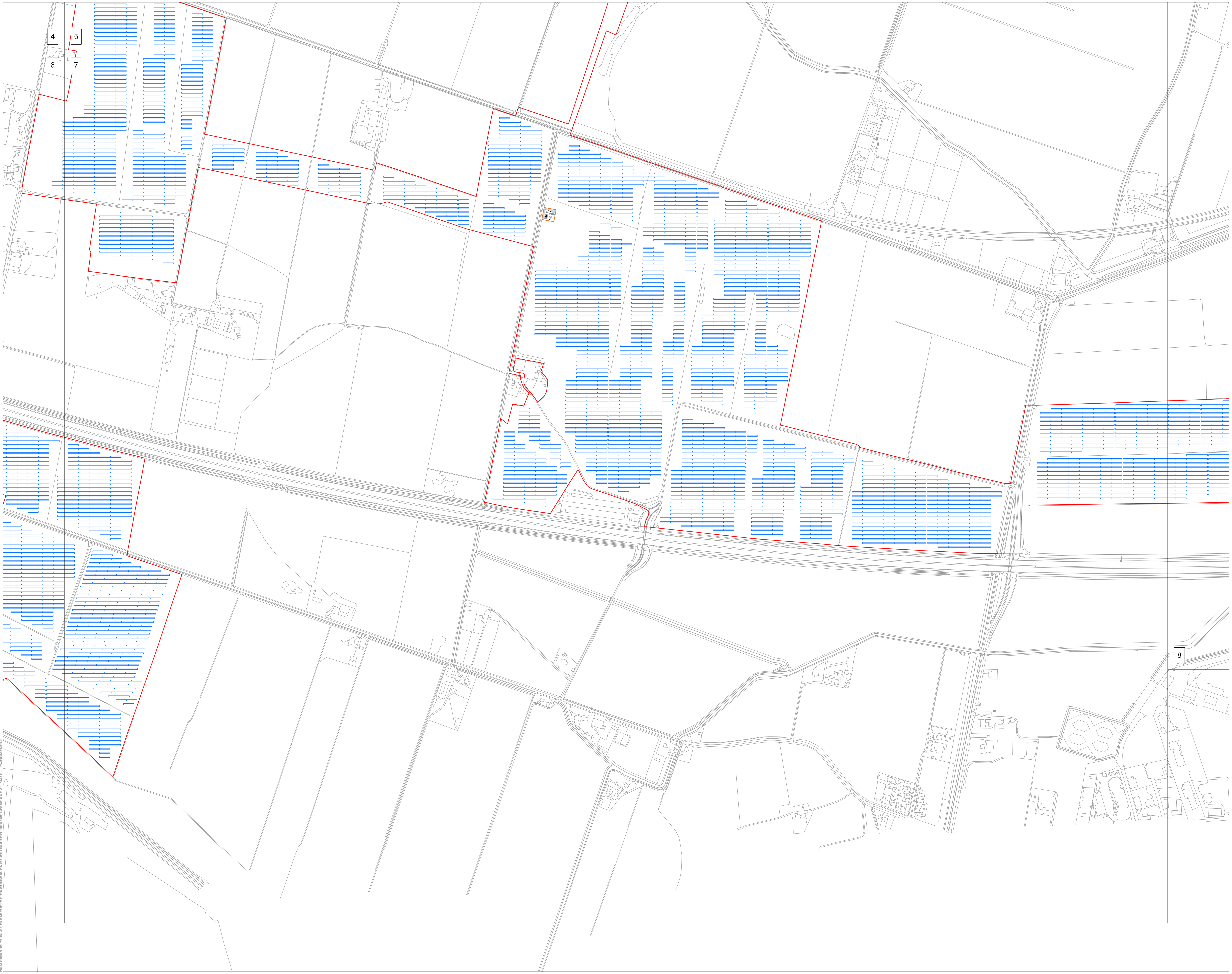
6 OF 8	D	P21-3484_22_D

N 0 0.1 km

PEGASUS GROUP



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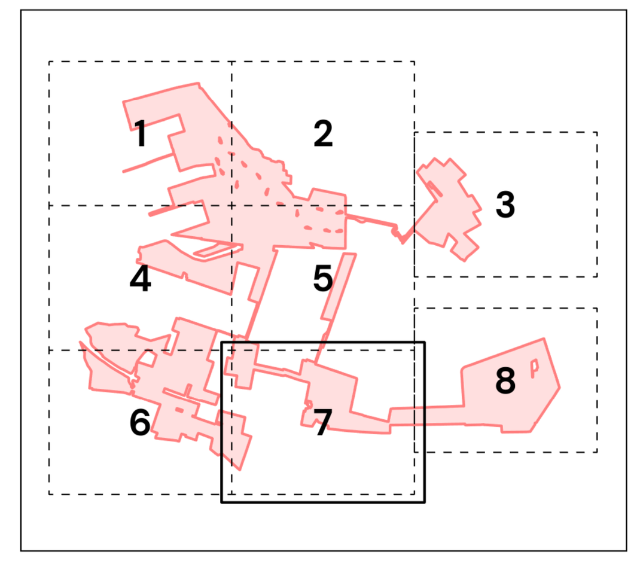

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7 OF 8	D	P21-3484_22_D

N 0 0.1 km

PEGASUS GROUP

8

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7

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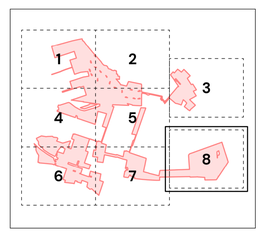

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N

0 0.1 km

PEGASUS GROUP